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WHAT IS CLAIMED IS:

1. An implantable composite tubular prosthesis comprising:

a first substantially continuous PTFE tubular body;

a second perimetrically non-continuous tubular body; and

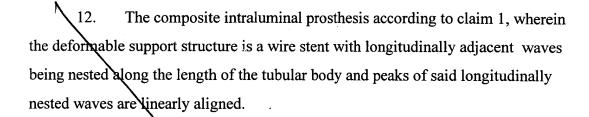
a circumferentially deformable support structure interposed between said tubular bodies.

said second tubular body being formed of a <u>plurality of elongate</u> polytetrafluoroethylene strips, said strips secured to the first tubular body, arranged longitudinal in <u>non-over-lapping</u> relationship, whereby axial and radial compliance is provided to said prosthesis.

- 2. The composite tubular prosthesis according to claim 1, wherein said first tubular body is an inner tubular body and said second tubular body is an outer tubular body of said prosthesis.
- 3. The composite tubular prosthesis according to claim 1, wherein said first tubular body is an outer tubular body and said second tubular body is an inner tubular body of said prosthesis.
- 4. The composite tubular prosthesis according to claim 1, wherein the PTFE of said first body is expanded PTFE.
- 5. The composite tubular prosthesis according to claim 1, wherein said deformable support structure is a stent.

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- 6. The composite intraluminal prosthesis according to claim 1, wherein the deformable support structure comprises a plurality of spaced apart circumferentially extending bands.
- 7. The composite tubular prosthesis according to claim 1, wherein said PTFE second tubular body is wrapped by a material selected from the group consisting of yarns, fibers, sheets and tubes.
- 8. The composite ribular prosthesis according to claim 1, wherein said strips of said second tubular body is a wrap configuration secured to said first body; said wrap configuration selected from the group consisting of a segmented tube, a segmented helical wrap a continuous non-overlapping helical strip, one or more longitudinal oriented strips and a plurality of segmented longitudinal helical strips.
- 9. The composite intraluminal prosthesis according to claim 1, wherein the substantially continuous body is formed of a sheet or spirally wrapped strip.
- 10. The composite intraluminal prosthesis as in claim 1, wherein the first tubular body is an extruded PTFE tube.
- 11. The composite intraluminal prosthesis as in claim 1, wherein the PTFE of said second body is ePTFE.



- 13. The composite intraluminal prosthesis according to claim 1, wherein the first body is secured to said second body by thermal bonding.
- 14. The composite intraluminal prosthesis according to claim 1, wherein the second polytetrafluoroethylene body comprises segments of polytetrafluoroethylene strips.
 - 15. The composite intraluminal prosthesis according to claim 1, wherein said continuous polytetrafluoroethylene tubular first body is comprised of a sheet of expanded polytetrafluoroethylene formed into a tubular shape by wrapping said sheet about a longitudinal axis.



16. An implantable composite intraluminal prosthesis comprising: a first perimetrically non-continuous polytetrafluoroethylene tubular inner

body;

a second perimetrically non-continuous polytetrafluorethylene outer tubular body, and

a circumferentially deformable support structure interposed between the inner and outer tubular bodies,

both said outer tubular body and said inner tubular body being formed of polytetrafluoroethylene strips, having a longitudinal length greater than its width, and said strips within each tubular body arranged in non-over-lapping relationship, with the strips of the inner tubular body overlapping the discontinuities of the outer tubular body, and secured in the overlap, whereby axial and circumferential compliance is provided to said prosthesis.

A method of providing axial and circumferential compliance to an 17. intraluminal prosthesis stent/graft composite comprising:

providing a first substantially continuous polytetrafluoroethylene a) tubular body;

positioning a deformable support structure over the tubular first body; b)

- positioning PTFE strip components in non-overlapping relationship, c) lengthwise along the length of the first body and support structure to form a tubularly shaped second body; and
- d) attaching the strips of the second body to the first body.

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- 18. A method of providing axial and circumferential compliance to an intraluminal prosthesis stent/graft composite comprising:
 - a) positioning PTFE strip components, having a length greater than their width, lengthwise along a mandrel, in non-overlapping relationship, to form a circumferentially non-continuous polytetrafluoroethylene tubular first body;
 - b) positioning a deformable support structure over said first body;
 - c) positioning PTFE strip components, lengthwise along the longitudinal axis of said inner body, in non-overlapping relationship but overlapping the discontinuities of the first body to form a second body; and
 - d) securing said second body to the first body to form said prosthesis.